#### DEPARTMENT OF TRANSPORTATION

DIVISION OF ENGINEERING SERVICES Office of Structural Materials

Quality Assurance and Source Inspection

Bay Area Branch 690 Walnut Ave.St. 150 Vallejo, CA 94592-1133 (707) 649-5453 (707) 649-5493



Contract #: 04-0120F4

Cty: SF/ALA Rte: 80 PM: 13.2/13.9

File #: 69.28

# WELDING INSPECTION REPORT

Resident Engineer: Siegenthaler, Peter **Report No:** WIR-019685 Address: 333 Burma Road **Date Inspected:** 16-Jan-2011

City: Oakland, CA 94607

**Project Name:** SAS Superstructure **OSM Arrival Time:** 700 **OSM Departure Time:** 1900 **Prime Contractor:** American Bridge/Fluor Enterprises, a JV

Contractor: Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island **Location:** Shanghai, China

**CWI Name: CWI Present:** Yes Mr. Xu Le Feng. No **Inspected CWI report:** Yes N/A **Rod Oven in Use:** Yes No No N/A N/A **Electrode to specification:** Yes No Weld Procedures Followed: Yes No N/A **Qualified Welders:** Yes No N/A **Verified Joint Fit-up:** Yes No N/A N/A N/A **Approved Drawings:** Yes No **Approved WPS:** Yes No Yes No N/A **Delayed / Cancelled:** 

**Bridge No:** 34-0006 **Component:** Tower and Orthotropic Box Girder (OBG)

### **Summary of Items Observed:**

On this day CALTRANS OSM Quality Assurance (QA) Inspector Shailesh Gaikwad was present during the times noted above for observations relative to the fabrication of the SAS Superstructure being performed by Zhenhua Port Machinery Company (ZPMC) at Changxing Island in Shanghai, China. QA observed and/or found the following:

### NDT

#### BAY 10:

This QA Inspector performed randomly Visual Inspection and Magnetic Particle Testing (MT) of approximately 15% of the area previously tested and accepted by ZPMC Quality Control personnel. This QA Inspector generated a TL- 6028 (MT) report for this date. The member is identified as OBG Bike Path. The weld designations reviewed are as follows.

BK010A2-001-022, 023, 024, 025

NDT Notification No-08195

#### BAY 10:

This QA Inspector performed randomly Visual Inspection and Magnetic Particle Testing (MT) of approximately 15% of the area previously tested and accepted by ZPMC Quality Control personnel. This QA Inspector generated a TL- 6028 (MT) report for this date. The member is identified as OBG Traveler Rail. The weld designations reviewed are as follows.

# WELDING INSPECTION REPORT

(Continued Page 2 of 3)

3005TR3-025

NDT Notification No-08193

#### **BAY 10**

This QA Inspector performed randomly Visual Inspection and Ultrasonic Testing (UT) of approximately 10% of the area previously tested and accepted by ZPMC Quality Control personnel. This QA Inspector generated a TL-6027 (UT) report for this date. The member is identified as OBG Bike Path. The weld designations reviewed are as follows.

BK010A2-001-022, 023, 024, 025 NDT Notification No-08187

This QA Inspector observed the following work in progress:

## BAY 10:

#### FCAW Process:

This QA Inspector observed ZPMC qualified welding personnel identified as 040533, Perform Flux Core Arc Welding (FCAW) on OBG Bike Path Stringer plate. Joint identified as BK009A3-001-005. ZPMC QC Identified as Lijun. The welding parameters as measured using QC's calibrated instrument appeared to be in general compliance with WPS-B-T-2132-ESAB.

### Heat Straightening:

This QA Inspector observed ZPMC personnel performing Heat straightening on OBG Bike path stringer plate maximum deformation observed 3~5mm. ZPMC QC Identified as Lijun with heat straightening report HSR1(B)-10068.

#### **BAY 11:**

#### **SMAW Process:**

This QA Inspector observed ZPMC qualified welding personnel identified as 041271, 040667, Perform Shielded Metal Arc Welding (SMAW) on OBG Bike path Angle plate. Joint identified as BK4C-024-001, 016. ZPMC QC Identified as Libin. The welding parameters as measured using QC's calibrated instrument appeared to be in general compliance with WPS-B-P-2112 and WPS-B-P-2113. For more information see attached picture number 1.

#### FCAW Process:

This QA Inspector observed ZPMC qualified welding personnel identified as 205649, Perform Flux Core Arc Welding (FCAW) on Tower lift 6 Assembly plate. Joint identified as WSD1-FFSA6-4-11, 26. ZPMC QC Identified as Libin. The welding parameters as measured using QC's calibrated instrument appeared to be in general compliance with WPS-B-T-2332-ESAB. For more information see attached picture number 2.

Unless otherwise noted, all work observed on this date appeared to be in general compliance with the applicable contract documents.

# WELDING INSPECTION REPORT

(Continued Page 3 of 3)





# **Summary of Conversations:**

Only general conversation was held between QA and QC concerning this project.

## **Comments**

This report is for the purpose of determining conformance with the contract documents and is not for the purpose of making repair or fit for purpose recommendations. Should you require recommendations concerning repairs or remedial efforts please contact Thomas Ho: 150002048250, who represents the Office of Structural Materials for your project.

Inspected By:	Gaikwad,Shailesh	Quality Assurance Inspector
Reviewed By:	Clifford,William	QA Reviewer